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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
12/774,749	05/06/2010	VINCENT A. IRELAND	SUB-US20080857-US-NP	8671

173 7590 04/06/2017

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EXAMINER
LEE, DOUGLAS

ART UNIT	PAPER NUMBER
1714	

NOTIFICATION DATE	DELIVERY MODE
04/06/2017	ELECTRONIC

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte VINCENT A. IRELAND, TRACI L. KACHOREK, and BROOKE L. LAU[1]

Appeal 2016-001532
Application 12/774,749
Technology Center 1700

Before KAREN M. HASTINGS, RAE LYNN P. GUEST, and DEBRA L. DENNETT, *Administrative Patent Judges*.

GUEST, *Administrative Patent Judge*.

DECISION ON APPEAL

I. STATEMENT OF CASE

Appellants appeal under 35 U.S.C. § 134(a) from the Examiner's decision to reject claims 1–4, 6, 7, 9–15, 17, and 19–21 under 35 U.S.C. § 103(a) as unpatentable over GE Service Guide[2] in view of Berends,[3]

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[1] Appellants identify the real party in interest as Whirlpool Corporation. Appellants' Appeal Brief 4, filed March 27, 2015 (hereinafter "App. Br.").
[2] GE Appliances, Technical Service Guide for GE Profile Dishwasher Series PDW8900, PDW9700 and PDW9900, Document 31-9137 (February 2006) (hereinafter "GE Service Guide").
[3] US 2008/0264448 Al, published October 30, 2008, identifying Erik Berends et al. as inventors (hereinafter "Berends").

Boehme,[4] Cracraft,[5] and, for claim 19 only, Corbett.[6] App. Br. 6. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

Appellants' invention is a dishwasher with a hidden operating mode that allows the user to select a plurality of pre-programmed dishwashing cycles that are optimized for particular environmental conditions related to the home of the user, particularly water hardness and types of rinse aid or detergent used, that may be different from the most common conditions, for which the dishwasher would be factory-default set. Specification ("Spec.") ¶¶ 1, 3–4, and 20–21. Claims 1 and 7 are exemplary claims on appeal and are reproduced below:

> 1. A method of operating a dishwasher having a default operating mode in which the dishwasher can be selectively operated in one of a plurality of pre-programmed default dishwashing cycles through actuation of at least one control switch, comprising:
>
> receiving a user-input signal indicative of a desire to access a hidden operating mode distinct from the default operating mode,
>
> entering the hidden operating mode of the dishwasher based on the user-input signal,
>
> actuating the at least one control switch to select one of a plurality of pre-programmed hidden dishwashing cycles associated with the hidden operating mode, and
>
> operating the dishwasher in the hidden operating mode in accordance with the one of the plurality of pre-programmed hidden dish washing cycles, wherein the plurality of

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[4] US 2006/0089295 Al, published April 27, 2006, identifying Corinna Boehme et al. as inventors (hereinafter "Boehme").

[5] US Patent 5,698,826, issued December 16, 1997 to Mark A. Cracraft et al. (hereinafter "Cracraft").

[6] US Patent 6,327,730 B1, issued December 11, 2001 to Mitchell N. Corbett (hereinafter "Corbett").

> preprogrammed hidden dishwashing cycles associated with the hidden operating mode are optimized to specific environmental conditions by changing at least one of a temperature and a cycle operating time, and wherein at least one of the specific environmental conditions is the use of at least one of detergent tablets, detergent gels and various types of rinse aid.
>
> 7. A method of operating a dishwasher, comprising:
>
> operating the dishwasher in a default operating mode in accordance with one of a plurality of pre-programmed default dishwashing cycles based on actuation of at least one control switch of the dishwasher,
>
> initiating a mode selection sub-routine based on a first user-input signal,
>
> receiving a second user-input signal indicative of a hidden operating mode,
>
> entering the hidden operating mode based on the second user-input signal, and
>
> operating the dishwasher in the hidden operating mode in accordance with one of a plurality of pre-programmed hidden dishwashing cycles associated with the hidden operating mode by actuating the at least one control switch of the dishwasher, the one of the plurality of pre-programmed hidden dishwashing cycles being optimized for hard water by changing at least one of a cycle temperature and a cycle operating time.

App. Br. 17–18, Claim App'x. Independent claim 11 is directed to a dishwasher, rather than a method of dishwashing, with a hidden operating mode with a plurality of pre-programmed cycles optimized similar to that of claim 11. *Id.* at 18–19.

Appellants present separate arguments for claims 1, 7, 10, 11, 20, and 21. All other claims stand or fall with the claims from which they depend, including separately rejected claim 19, for which no additional arguments are presented. *See* App. Br. 15.

Unless otherwise indicated, we adopt the Examiner's findings in the Answer as our own and add any additional findings of fact appearing below for emphasis.

II. Discussion

Claims 1, 20, and 21

Appellants present substantially the same arguments with respect to claims 1, 20, and 21. *Compare* App. Br. 7–9, 12–13, and 14–15.

Claims 1, 20, and 21 each recite, *inter alia*, a "hidden operating mode" and a "plurality of pre-programmed hidden dishwashing cycles" that are optimized for the use of "at least one of detergent tablets, detergent gels and various types of rinse aid."

The Examiner finds that GE Service Guide teaches a dishwasher and a method of operating the dishwasher with a hidden operating mode that provides a plurality of pre-programmed hidden dishwashing cycles, specifically five different pre-programmed cycles depending on the water hardness information entered by the user. Final 3; Ans. 2–3. Specifically, GE Service Guide teaches a hidden operating mode for the user to input one of five selection based on an at-home test or water hardness. GE Service Guide 14. Based on the user input, the dishwasher will run one of five different washing cycles. *Id.* The washing cycles vary by the amount of detergent dispensed from the "SmartDispense" detergent dispenser, which optimizes the amount of dispense detergent based on "the soil level of the dishes and the hardness of the water." *Id.*

The Examiner finds that GE Service Guide does not expressly teach optimizing either temperature or cycle operation time for the use of

detergent tablets, detergent gels, or various types of rinse aid. Final 3; Ans. 3.

Accordingly, the Examiner finds that Berends teaches "to adjust cycle times and temperatures depending on the detergent used." Final 3–7; Ans. 3. Indeed, Berends teaches that it was known in the art at the time of the invention that detergents that include a rinse aid and/or water softener, also known as a 2-in-1 (2 component) or 3-in-1 (3 component) detergent composition, require "longer cycle times (especially of the drying step)," "higher liquid temperatures during the final rinse," and "suppression of the second intermediate rinse step." Berends, ¶¶ 3–4 (citing in ¶ 3 numerous references which describe these known adaptations "according to which rinse aid and salt indicators are disabled when not needed"). The Examiner determines that

> It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the GE service guide to include optimizing the dishwashing cycles based on the detergent used by changing a cycle temperature or duration as is known in the art as disclosed by Berends via the hidden operating modes (see Cracraft col. 1, lines 17-52 which discloses the desire to improve readability of a dishwasher control panel by reducing the number of switches/buttons on the control panel) of the GE service guide in order to obtain satisfactory washing and drying results (see Berends at paragraph [0004]).

Final 4.

Appellants argue that it would not have been obvious to optimize dishwashing cycles based on detergent use via a hidden operating mode because Berends teaches automatic cycle selection based on rinse aid/water softener fill level detection, which would not require a hidden operating mode. App. Br. 8. Appellants argue that, unlike water hardness, which

"would be entered once and then never again," the use of different detergents and rinse aids will vary much more frequently. *Id.* According to the Appellants, there is no reason to implement a manual adjustment system from an automated system, as it would requires "additional effort on the part of the user" without reducing buttons. *Id.* at 8–9; Reply Br. 3.

We are not persuaded by Appellants' arguments. It is not disputed that Berends is directed to a method of automatically altering washing cycles based on the presence or absence of an added rinse aid. However, Berends also teaches prior art dishwashers which operate precisely as does the present claimed invention. Berends ¶ 5. Specifically, Berends describes prior dishwashers in which "adapted wash cycles are selected via additional control elements," such as "additional, momentary buttons [i.e., a hidden operation mode] which can be pressed to select all cycles from the 2-in-1 group or 3-in-1 group that are to be used in the future." *Id.* Berends is an alleged improvement because "when users switch from combination products to standard detergents, they often forget to release buttons they have pressed before." *Id.*

However, automation comes at the cost of user control. The reason the skilled artisan would opt to provide the user additional controls over an automated system is to provide the user, who values optimal control over simplification, the option of setting the variables rather than having the cycles determined automatically. For example, the automated system of Berends does not allow the user to switch cycles back to the setting for 2-in-1 or 3-in-1 detergents when the water softener/rinse aid reservoirs are full. Berends ¶ 14. Further, we agree with the Examiner that, when such a degree of control is desired, it would have been obvious to do so via a hidden

operating mode to avoid the clutter of additional buttons on the dishwasher face based on the teachings of Cracraft. Ans. 15 (citing Cracraft col. 1, lines 17–52).

Moreover, even if automation is a preferred approach for a dishwasher, Berends does not teach the inoperability of or otherwise discredit the prior art dishwashers that were not automatic but served the same purpose with hidden manual operating modes. *In re Gurley,* 27 F.3d 551, 552–3 (Fed. Cir. 1994) ("A known or obvious composition does not become patentable simply because it has been described as somewhat inferior to some other product for the same use."); *see also In re Larson*, 340 F.2d 965, 969 (CCPA 1965) ("[i]f this additional [superior] feature is not desired, it would seem a matter of obvious choice to eliminate it and the function it serves.").

Therefore, we are not persuaded of Examiner error in the rejection of claims 1, 20, and 21, or the claims that depend therefrom, under 35 U.S.C. § 103(a).

Claims 7 and 11

Appellants present substantially the same arguments with respect to claims 7 and 11. *Compare* App. Br. 9–10 and 11–12.

The Examiner determined that

> It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the GE service guide to include optimizing the dishwashing cycles based on the detergent used and the hardness of the water by changing a cycle temperature or duration as is known in the art as disclosed by Berends via the hidden operating modes (see Cracraft col. 1, lines 17-52 which discloses the desire to improve readability of a dishwasher control panel by reducing the number of switches/buttons on the control panel) of the GE service guide in

> order to obtain satisfactory washing and drying results (see Berends at paragraph [0004]).

Ans. 6–7 and 8–9.

Appellants argue that the combination fails to render obvious modifying the dishwasher of GE Service Guide to add cycles optimized for hard water by changing either temperature or cycle operating time, as claimed. App. Br. 10 and 12; Reply Br. 3. Appellants contend that "[t]here is no disclosure of changing a cycle temperature or operating time based on water hardness." *Id.* Appellants argue that Berends only teaches changing cycle temperatures and cycle times based on the types of detergent used, namely standard detergent or combination products. *Id.*

Berends teaches that combination detergents may include a rinse agent, a water softener, or both, but standard detergents contain neither a rinse agent nor a water softener. Berends teaches that, when the water hardness of 21° dH or less, the water softener and rinse agent provided in a combination detergent should be sufficient. However, for water hardness greater than 21° dH, a wash cycle may need rinse agents and/or water softeners in addition to those provided in a combination detergent.

The Examiner reasons that, indeed, Berends discloses that dishwasher cycles need to be adapted based on the water hardness, including the cycle times and/or cycle temperatures, by the "the use of certain detergent types based on the water hardness." Ans. 16.

We agree with the Examiner's reasoning. Berends teaches using different water temperatures and cycle times when the user has chosen to use a combination detergent further comprising a water softening agent (i.e. the user has hard water that needs to be addressed with a softening agent).

Berends further teaches alternative conditions when additional softening agents is needed in the event that such a combination detergent is not sufficient, namely, for water with a hardness of greater than 21° dH. Accordingly, Berends teaches dishwashing cycles that are "optimized for hard water by changing at least one of a cycle temperature and a cycle operating time" via the user's selection of appropriate detergent when the user has hard water. The claims do not require cycle options for a variety of water hardnesses, but rather only one category of "hard water." Thus, Berends teachings of various ways to address "hard water," namely via a combination detergent or via separately adding a softening agent, and the cycle times and temperatures associated with both approaches meets the requirements of "a plurality of pre-programmed" cycles optimized "for hard water" by changing cycle temperature and operating times. Appellants present no persuasive evidence to the contrary.

Therefore, we are not persuaded of Examiner error in the rejection of claims 7 and 11, or the claims that depend therefrom, under 35 U.S.C. § 103(a).

Claim 10

Claim 10 depends from claim 7 and further comprises a step of "deactivating the mode selection sub-routine when the second user-input signal is not received in a predefined period of time." The Examiner finds that GE Service Guide teaches a deactivation feature for a different hidden mode, namely a "service mode." Final Act. 7 (citing GE Service Guide 32). The Examiner determines that "[i]t would have been obvious to one of ordinary skill in the art at the time of the invention to include a deactivation feature for the hidden operating mode in order to avoid confusion when

operating the dishwasher." *Id.* The Examiner also states that "[d]eactivation features are well-known in the dishwashing art and do not provide patentable significance." Ans. 16 (further citing an indicator light auto shut off in GE Service Guide at page 9).

Indeed, page 9 of the GE Service Guide teaches that all selected cycles deactivate ("the indicator lights will turn off") if the START/RESET pad is not selected within 5 minutes, i.e., there is no second user-input received in a predefined period. *See* GE Service Guide 9. We find this teaching substantial evidence to support the Examiner's assertion that deactivation features when a user input is not received in a defined period of time were known in the dishwasher art at the time of the invention.

Appellants argue that the Examiner's reliance on the disclosure on page 32 of GE Service Guide, which teaches deactivation after 30 minutes regardless of whether a user input is received, is distinguishable from the claims which require deactivation only if a "second user-input signal is not received in a predefined period of time." App. Br. 11. Appellants provide no substantial argument to address the Examiner's reliance on the disclosure on page 9 of the GE Service Guide, except to point out that this is a new ground of rejection by the Examiner because it was provided for the first time in the Examiner's Answer. Reply Br. 4.

> Any request to seek review of the primary examiner's failure to designate a rejection as a new ground of rejection in an examiner's answer must be by way of a petition to the Director under § 1.181 of this title filed within two months from the entry of the examiner's answer and before the filing of any reply brief. Failure of appellant to timely file such a petition will constitute a waiver of any arguments that a rejection must be designated as a new ground of rejection

37 C.F.R. § 41.40(a). *See also, e.g.,* Manual of Patent Examining Procedure § 1002.02(c)6 and § 1207.03(b) (9th ed., Rev. 7, November 2015); *In re Berger*, 279 F.3d 975, 984–85 (Fed. Cir. 2002) (Issues regarding whether an examiner abused his or her discretion in matters of practice and procedure are not subject to appeal). Accordingly, we address the rejection based on the Examiner's findings and reasons expressed in both the Final Office Action and the Answer.

We agree with the Examiner that the prior art supports a finding that hidden mode deactivation features after a set period of time were known in the dishwasher art at the time of the invention and would have been an obvious way to automatically revert hidden modes to default operational modes to avoid confusion. Appellants have presented no persuasive arguments to the contrary.

Therefore, we are not persuaded of Examiner error in the rejection of claim 10, or the claims that depend therefrom, under 35 U.S.C. § 103(a).

IV. CONCLUSION

On the record before us and for the reasons discussed above, we sustain the rejections maintained by the Examiner.

V. ORDER

We affirm the Examiner's rejections of 1–4, 6, 7, 9–15, 17, and 20–21 under 35 U.S.C. § 103(a) as unpatentable over GE Service Guide in view of Berends, Boehme, and Cracraft, and of claim 19 under 35 U.S.C. § 103(a) as unpatentable over GE Service Guide in view of Berends, Boehme, Cracraft, and Corbett.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED